

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER KRULEVITCH, JULIE K. HAMILTON,
and HAROLD D. ACKLER

Appeal 2007-1019
Application 09/851,231
Technology Center 1700

Decided: March 23, 2007

Before EDWARD C. KIMLIN, PETER F. KRATZ, and
JEFREY T. SMITH, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 11-19. Claim 11 is illustrative:

11. An apparatus having a sealed open microchannel therein, comprising:

an etched open substrate;

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an etched open microchannel in said etched substrate,

an annealed substrate positioned on said etched substrate that covers said etched microchannel in said etched substrate,

an annealed open microchannel in said annealed substrate over said etched microchannel in said etched substrate, and

a bond connecting said etched substrate to said annealed substrate, wherein said etched open microchannel and said annealed open microchannel comprise said sealed open microchannel.

The Examiner relies upon the following reference in the rejection of the appealed claims:

Cammack US 5,574,327 Nov. 12, 1996

Appellants' claimed invention is directed to an apparatus comprising a substrate having a microchannel etched therein and a substrate having formed therein an annealed open microchannel. A bond connects the etched substrate to the annealed substrate. Claims 17-19 recite the claimed apparatus in product-by-process format.

Appealed claims 11, 13-15, 17, and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Cammack. Claims 12, 16, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cammack.

We have thoroughly reviewed each of Appellants arguments for patentability. However, we find that the Examiner's rejections are well founded and in accord with current patent jurisprudence. Since we find ourselves in complete agreement with the Examiner's reasoned analysis and application of the prior art, as well as her cogent disposition of the

arguments raised by Appellants, we will adopt the Examiner's reasoning as our own in sustaining the rejections of record. We add the following for emphasis only.

There is apparently no dispute that Cammack, like Appellants, discloses an apparatus having a sealed open microchannel therein comprising an etched open microchannel in substrates that are fusion bonded together and annealed. The principal argument advanced by Appellants is that the reference "statements that etched microchannel half cavity 20 and etched microchannel half cavity 22 are subsequently annealed does not provide anticipation of Appellants' claim element, 'annealed open microchannel/providing an annealed open microchannel' of Appellants' independent claims 11 and 17" (Br. 13, last sentence).

Hence, it is Appellants' position that the claimed apparatus distinguishes over the apparatus of Cammack by having a microchannel annealed in one substrate as opposed to the reference etching of microchannels in both substrates.

We fully concur with the Examiner that Appellants' arguments are not persuasive. Regarding apparatus claims 11-16, the Examiner correctly explains that the claim recitation "an annealed open microchannel" is a process limitation that does not further define the structure of the apparatus. Appellants have not established on this record that there is any structural distinction between the microchannel defined by claim 11 and the microchannel described by Cammack. In the words of the Examiner,

“[e]ven if the microchannel half cavities 20 and 22 in Cammack et al. are etched and subsequently annealed, and not formed by annealing as disclosed in Appellants’ present invention, the end product is the same in structure as that disclosed in Appellants’ present invention,” and Appellants have not proffered evidence to the contrary (Answer 6, second para.).

As for product-by-process claims 17-19, it is well settled that when prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, the burden is on the applicant to establish with objective evidence that the products are not, in fact, substantially the same. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). In the present case, Appellants have not shouldered their burden of demonstrating that their microchannels formed by annealing are substantially different than the microchannels formed by etching in the Cammack patent.

As for the § 103 rejection of claims 12, 16, and 18, Appellants have not rebutted the reasonable position articulated by the Examiner in the Answer, but have only relied upon the asserted differences between microchannels formed by annealing and etching. Appellants’ statement at page 18 of the Brief that the differences between Cammack and Appellants’ invention defined by claims 12, 16, and 18 “includes the fact that the elements of claims 12, 16 and 18 are not found in the Cammack et al. reference” is not a substantive argument which sets forth why the differences would have been nonobviousness to one of ordinary skill in the art within

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the meaning of § 103. We also note that Appellants base no argument upon objective evidence of nonobviousness, such as unexpected results. In addition, we find no disclosure in the original specification that microchannels are formed by annealing.

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

clj

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